

1. Title	Supervise hull and ship structure repairs
2. Code	EMSRRM403A
3. Range	Apply the knowledge of metal fabrication technology and hull structure to supervision of hull and ship structure repairs, and formulate work standards, supervise repair work and manage general frontline tasks at shipyards.
4. Level	4
5. Credit	6
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Types of ships and methods of constructing and building main structural framework</p> <ul style="list-style-type: none"> ◆ Understand naval architecture and ship structure, including knowledge of damage control and techniques of hull repairs ◆ Understand the basic construction of different types of ships <ul style="list-style-type: none"> • Traditional types • High-speed types ◆ Understand the key functions of main structural parts <ul style="list-style-type: none"> • Definitions of hog and sagging • Common load • Typical load (characteristics) graph • Construction of amidship • Cabinet framework and outer hull plates • Double-bottom • Bulbous bow • Bow construction • Stern frame • Bulkhead <p>6.2 Methods and procedures of supervising hull and ship structure repairs</p> <ul style="list-style-type: none"> ◆ Plan and supervise the maintenance of the hull and internal structure and ensure the work processes meet technical, legal, safety and procedural standards <ul style="list-style-type: none"> • Using appropriate materials and equipment for repairs • Selecting the most appropriate measures for repairs ◆ Master the key points to ship repairing, technology updating and water-tightness testing, and lead working groups to perform the following tasks: <ul style="list-style-type: none"> • Repairing the coating of hulls and working on damaged ship plates • Repairing and reconditioning the parts of different materials and perform water-tightness tests after repairing

	<p>6.3 Professionalism in supervising hull and ship structure repairs</p> <ul style="list-style-type: none"> ◆ Make a comparison of the actual state of the hull and ship structure with their pre-service conditions, and verify whether their performance meet the indicators of regulatory bodies and the requirements stated in the constitution of classification societies ◆ Take actions according to approved procedures, and standards and limitations recommended by classification societies and make decisions on repair procedures ◆ Organize repair procedures and coordinate the efforts
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none"> (i) Capable to identify various types of ships and structural framework; (ii) Capable to lead working groups to perform the tasks of hull repairs and ship structure replacements; (iii) Capable to identify the damage of hulls and major structural parts and relevant remedies according to approved procedures and the instructions stated in the constitution of regulatory bodies and classification societies; and (iv) Capable to supervise hull and ship structure repairs effectively.
8. Remarks	<p>The credit value of this unit of competency is set on the presumption that the person already possesses basic knowledge of hull structure and the competency of application of metal fabrication technology (such as EMSRIN102A “Checking of and working on ironwork materials” and EMSRRM201A “Apply metal fabrication skills to ship repairs and maintenance”) and understands basic management and planning skills.</p>